



PEPFAR

U.S. President's Emergency Plan for AIDS Relief

Systems Investments (Table 6)

PEPFAR Mozambique | March 10, 2022

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19 YEARS OF SAVING LIVES THROUGH AMERICAN GENEROSITY AND PARTNERSHIPS



Supply Chain Modernization, Private Sector Engagement, and Building Resilience

Evolution of the Supply Chain in Mozambique

- **Before:** inaccurate forecasting, poor storage, paper-based inventory, distribution to province level, visibility of the supply chain and ad hoc last mile distribution. **Result: constant stockouts and expired ARVs**
- **Today:** supply chain TA , infrastructure (warehouses, LMIS, health commodity transport) and capacity building investments to help reduce stock outs, increase end-end visibility, ensure smooth transition to optimized regimens, & enable DSD
- **Future:** transition to national government to ensure sustainability of significant clinical and logistics gains obtained so far



2008



2014



2022

Private Sector Solutions and Route Optimization: CHEGAR & AMOSTRA

Challenges before

- Government, IPs, and private sector vied for the same transport vehicles causing vehicle breakdowns, incoordination, and road inaccessibility
- Health staff juggled commodity distribution with patient care leading to low quality service

AMOSTRA

- Rapid full coverage in four provinces already implemented
- **More pickups** completed in Sofala and Tete than before
- **100% on-time** & complete **deliveries**
- No significant negative effects on turnaround times
- Increased visibility, decision making, and control to the SPSs



CHEGAR

- Private sector enables ease of cross border deliveries, hires local staff daily, pools transport companies to quickly overcome barriers (vehicle breakdowns)
- **Resiliency and sustainable growth of local companies**, generating community health, economic, and social gains (including gender equity)
- **1,760 monthly deliveries** made to HFs, private pharmacies, and refugee centers in **Cabo Delgado**
- Costs reduced by removing one layer of management and fixed costs from two 4PLs to one 4PL
- Key player in COVID 19 vaccine distribution

HF "Chilovela"
Niassa Province,
Lago District
required **10-hr boat
trip across Niassa
lake** to retrieve
health commodities



HF "Chilovela", Sept 2021: **1st
direct commodity delivery**

COVID-19 Supply Chain Investments

Growing pains

- COVID-19 supply chain characterized by insufficient commodities, equipment, procedures and staff as well as overcrowded health facilities/pharmacies
- Then it was characterized by a rapid influx of commodities, insufficient storage, unforeseen increased distribution costs, inadaptability of the information system, pharmacy staff absenteeism

Adaptations

- Response included rapid deployment of 3MMD and PP dispensing
- Warehouse TA and adaptation of IS to accommodate COVID19 commodities and equipment
- Improved procedures for management and maintenance of oxygen ecosystem (PSA, cylinders, ventilators, supplies) and other commodities
- Deployment of procedures for vaccines emergency use authorization and monitoring the safety of vaccines circulating in the market

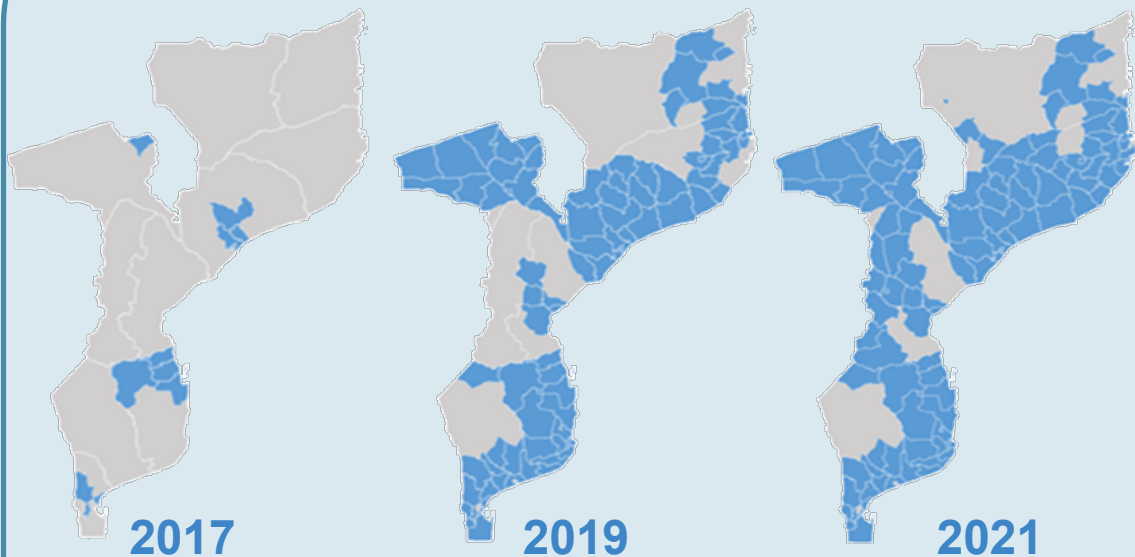


Room with 2x10 Oxygen Cylinder ramp
Nampula Central Hospital

Above Site Supply Chain TA - Modernization (forecasting, LMIS)

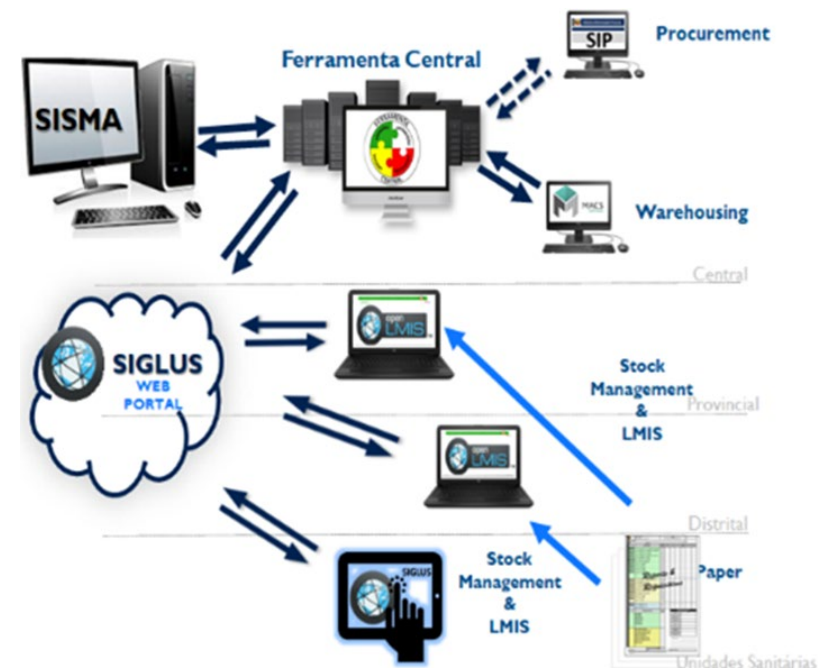
Laboratory stock management software (SIGLAB) rolled out to all molecular biology labs in 2021

SIGLUS Coverage Growth from 2017-2021



As of September 2021, 1,405 (88.9%) of the 1,580 existing health facilities nationwide reported data through SIGLUS

- Data availability for decision-making for HIV, Malaria, FP & MCNH commodities;
- End-to-end data visibility; service delivery point (SDP) data visibility at central, provincial and district levels; Provincial data visibility at central level;
- Improve distribution of commodities within the country by tracking stock status and consumption at SDPs;
- Availability of actionable information for the detection and correction of issues related with the distribution of commodities.



Decentralized Drug Distribution (DDD) Scale-up Support

DDD Private Pharmacies

- Expanding to a total of 73/77 private pharmacies (PP) for patients from 39 sites
- Patient dispensing tracking system, particularly of TLD 90-counts to also support MMD, using web-based IT through convenient tablets
- TLD 90 consumption provided by SIGFAP- 3,332 packs dispensed during Jan-22
- SIGFAP supported TLD90 pick up for >8,712 patients at PPs in the last 3 months

Challenges

- ARV management process
- System costs - diverting investment from MoH
- Demand creation at Health Facilities
- Private pharmacy staff turn over
- Implementing teams affected by COVID-19



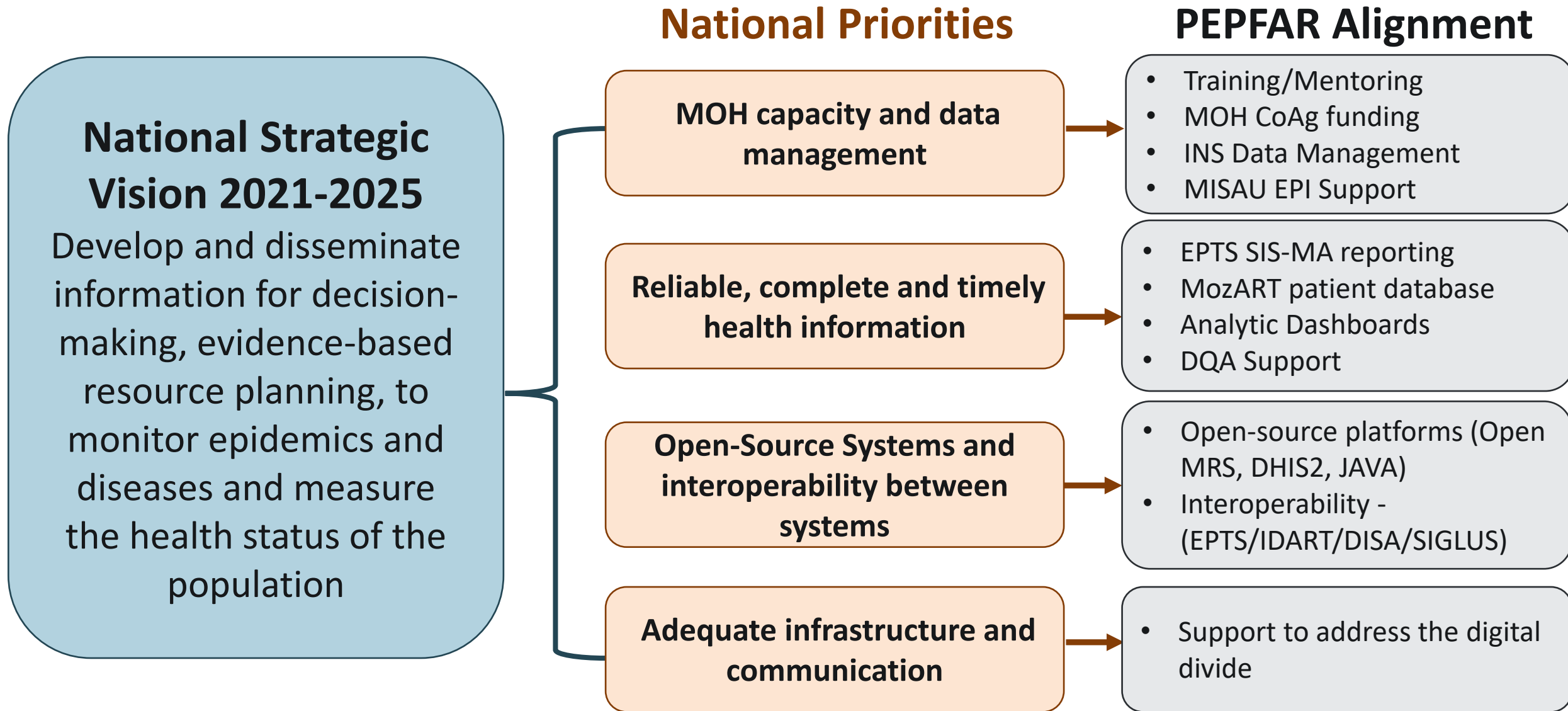
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19 YEARS OF SAVING LIVES THROUGH AMERICAN GENEROSITY AND PARTNERSHIPS

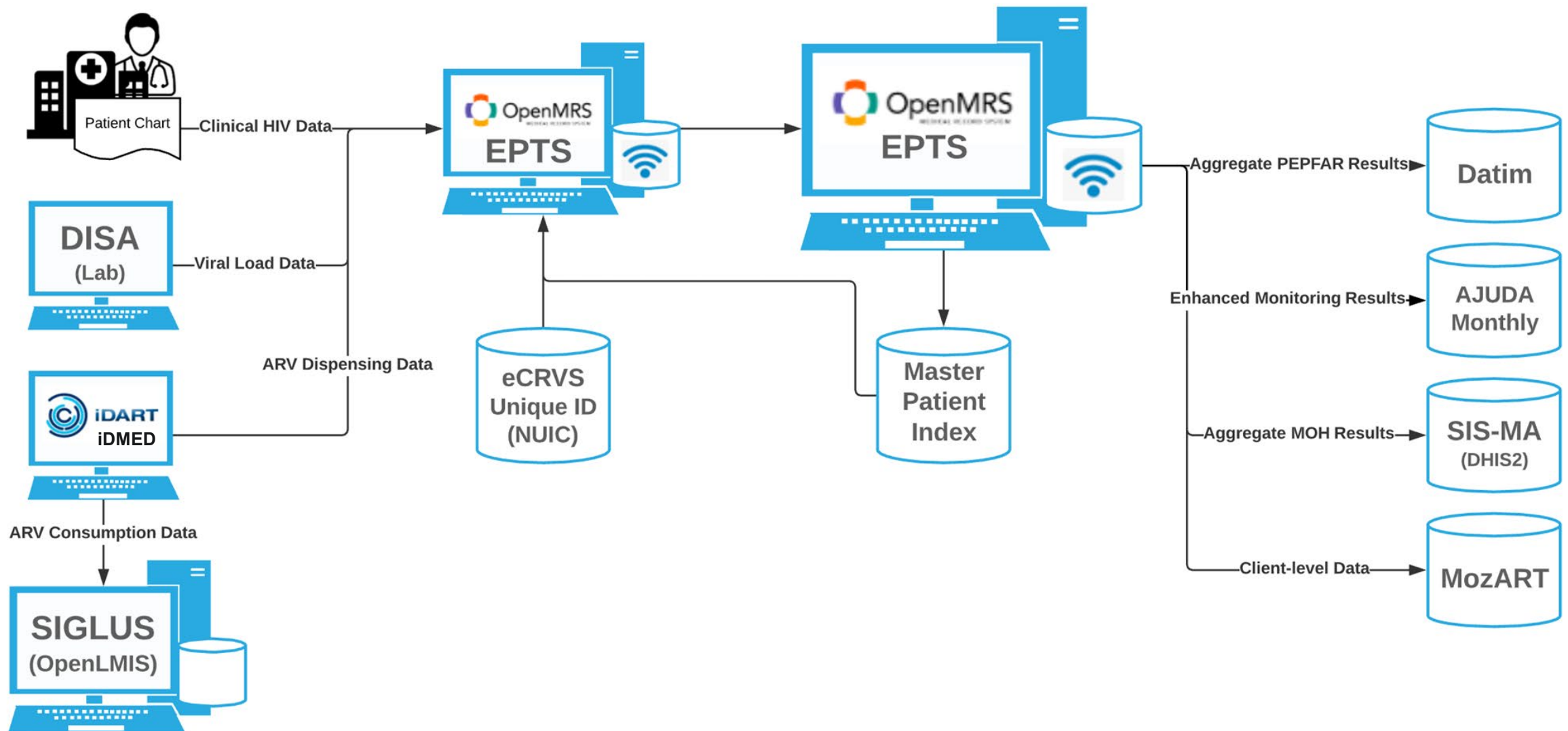


SI/Health Information Systems

PEPFAR HIS Activities Guided by National HMIS Strategy



HMIS Landscape Includes Key PEPFAR Inputs and Systems



Maintain

- Enhancement and centralization of EPTS
- Transition from iDART to web-based iDMED
- Deployment of EPTS predictive analytics EPTS plug-In
- Systems interoperability (EPTS, iDMED, DISA, SIGLUS)
- Standardization and maintenance of VMMC HIS
- Maintenance of systems Helpdesk
- Enhancements to MozART National Patient Database & Support for INS Data Management Unit (DMU)
- Continued development of MISAU HIV analytic dashboard platform
- National DQA Round (7 core HIV indicators assessed by MISAU/USG in ~70 sites in 11 provinces)
- Continuation of unique ID (NUIC) scale-up in Zambezia and Sofala (Minimum Program Requirement)

New Activities

- Small-scale deployment of EPTS at high-volume sustainability sites (~5 sites)
- Expanded deployment of EPTS Clinical Summary App
- Development and deployment of Muzima mobile application to support tracking of home visits and IC testing
- Strengthening of systems and data security
- Epi support to MISAU

Discontinue

- eCRVS support
- Seconded DPS staff to transition from JEMBI to DPS

Surveillance

Surveillance Portfolio Aligns with Themes for PEPFAR COP22

COP22 Themes

Goal 1: Accomplish the Mission

Achieve and sustain epidemic control using evidence-based, equitable, people-centered HIV prevention and treatment services

Goal 2: Building Enduring Capabilities

Resilient and capacitated country health systems, communities, enabling environments, and local partners

Goal 3: Build Lasting Collaborations

Strengthen cooperation and coordination for greater impact, responsibility sharing, and sustainability

COP22 Mozambique Surveillance Priorities

- Produce population-based measures of the 95-95-95 cascade at the national and provincial levels
- Provide HIV prevalence and incidence estimates
- Conduct surveillance activities to provide evidence base for people-centered HIV care, including key populations

- Train local partners in epidemiological principles and surveillance methodologies
- Provide technical assistance for survey implementation, analytic approaches and data interpretation

- Support government-led surveillance, studies and analyses
- Align with government priorities and respond to strategic data needs

Goal 1: COP22 Surveillance Activities Provide Critical Information to Achieve and Monitor Epidemic Control

Understanding HIV burden and impact in the general population

- **Health and Demographic Surveillance System- Polana Caniço:** surveillance in urban setting with assessment of HIV/STI prevalence and mortality to calculate HIV prevalence, HIV incidence, and 95-95-95 indicators
- **HIV Case-based Surveillance:** systems assessment of challenges and opportunities of unique HIV case identification and translation of findings to future system design to track key HIV sentinel events among PLHIV
- **HIV Drug Resistance Surveillance:** DR testing of VL remnant samples routinely collected for patient care from laboratory platforms (Lab funded with Surveillance Team technical engagement)
- **Mortality Surveillance:** analytic support, integrated system conceptualization and advocacy for other funding sources to support comprehensive mortality surveillance

Monitoring unique needs of key and priority populations

- **Internally Displaced Persons Health Surveillance:** sentinel surveillance to monitor HIV service needs of IDP
- **Key Population Mapping and Size Estimation, and BBS FSW/MSM 2024 planning:** implementation, analysis, and report dissemination of mapping and size estimation with Global Fund partners, and protocol design for BBS MSM/FSW in 2024

Goals 2 & 3: Epi & Surveillance Collaborations Focus on Long-Term Capacity-Building and Data for Decision-Making



National, provincial, and district HIV estimates

Strategic information activities including CNCS technical support and the situation room



National Health Observatory

Scientific products to inform public health decision-makers

Routine analysis MozART and other HIV-related data



Data Management Unit

Infrastructure at INS to support surveillance and study data management

Maintenance of MozART patient-level database



Strengthen national epidemiological capacity

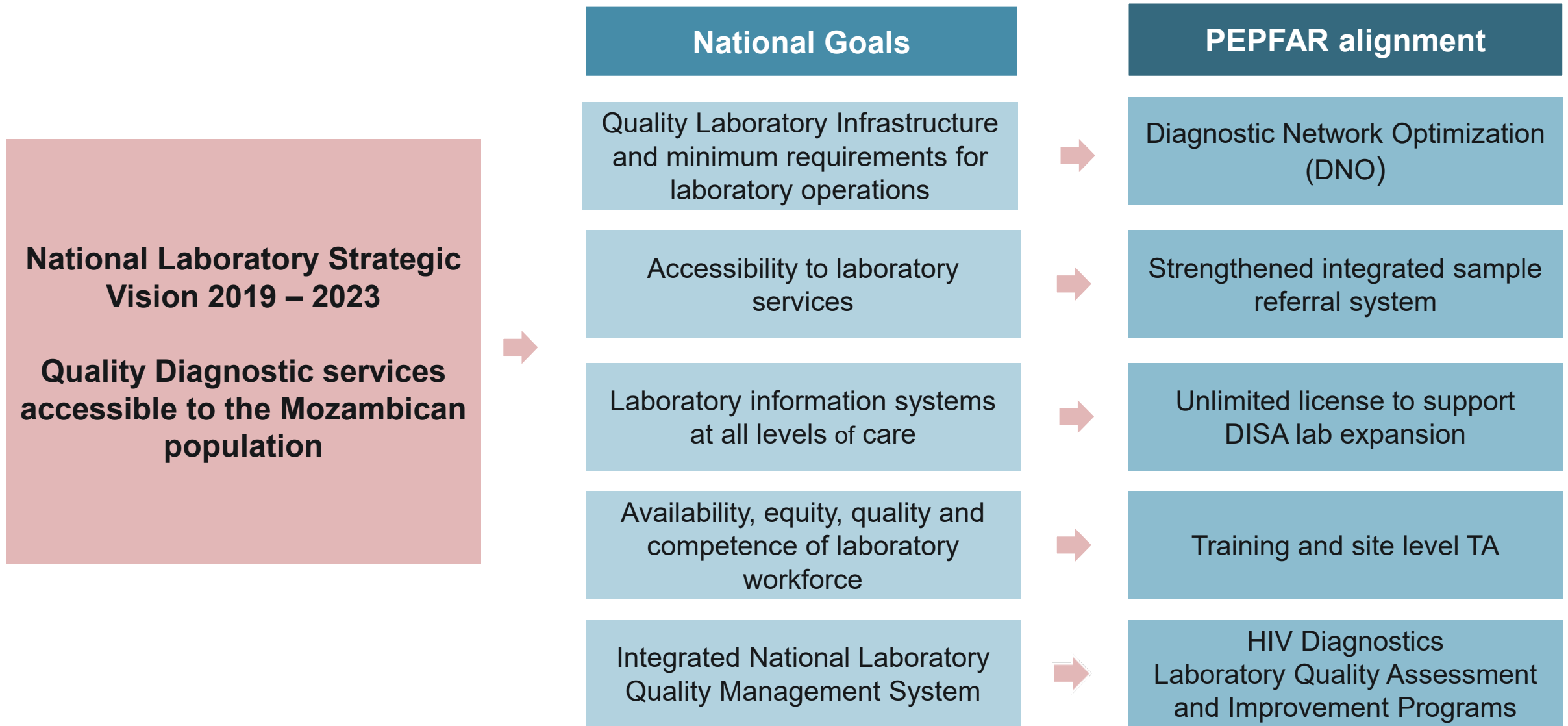
Support routine investigations for HIV and related areas at the national, provincial and district levels

USG/PEPFAR Technical Assistance and support



Laboratory Systems Strengthening

Priorities for Lab Systems Strengthening Align with MOH Strategic Plan



Significant Progress Towards an Optimized Laboratory Network for VL & EID

Accomplishments:

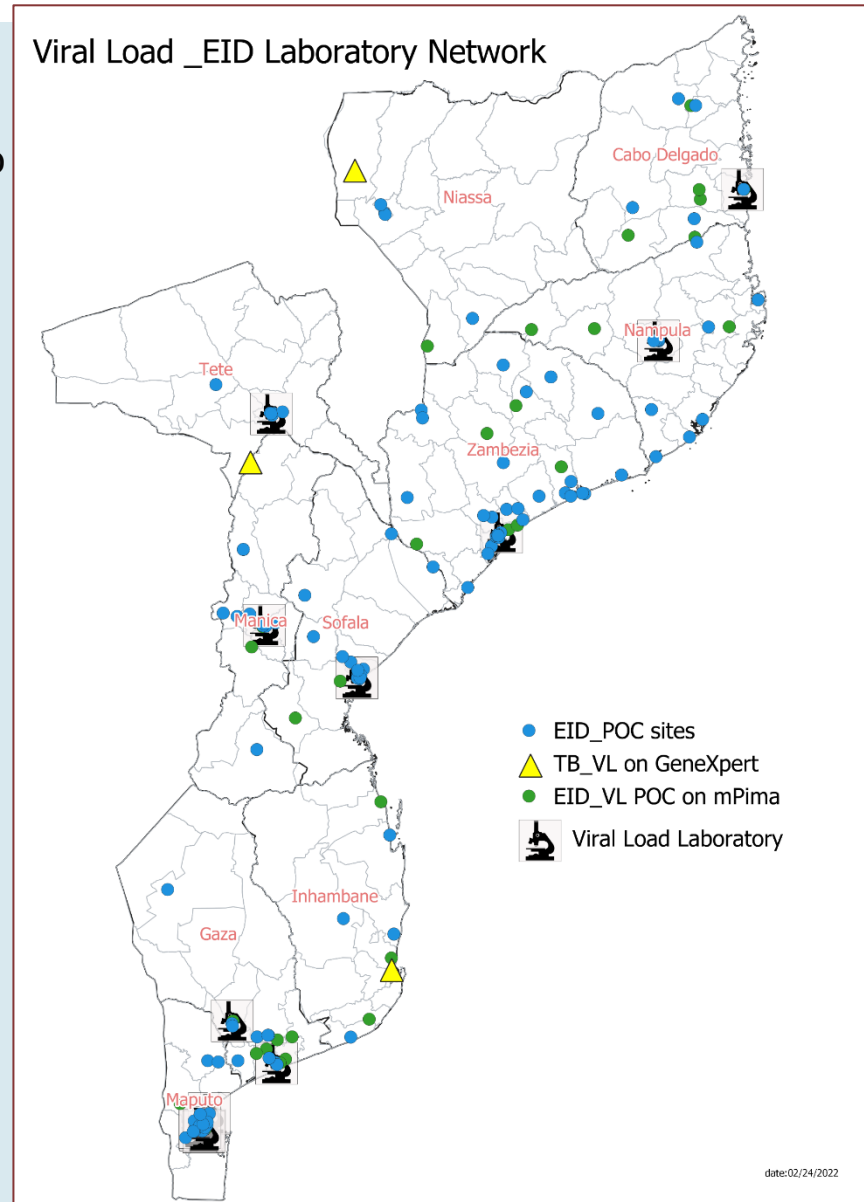
- 2 lab constructions completed, 3 additional labs to be built in FY22; ongoing placement of high throughput instruments increasing VL/EID testing capacity to 2.8 million tests/year by end of 2022
- Improved sample transport schedules in coordination with DISA_link referral expansion, with better functionality to track samples (average TAT 15 days)
- AMOSTRA implemented in two provinces
- Multiplexing mapping completed to identify HFs with available capacity on mPIMA and GeneXpert; implementation commenced in February 2022

Challenges:

- No laboratory capacity in Inhambane and Niassa provinces impacts TAT for VL & EID
- Qualitative HIV-1 assay (EID) for the two major brands of high throughput instruments is not available
- Frequent reagent stock outs in Q1

COP22 Plans:

- Adopt OptiDx for continued network assessment and optimization;
- Laboratory construction in 1 additional province
- AMOSTRA expansion to additional provinces

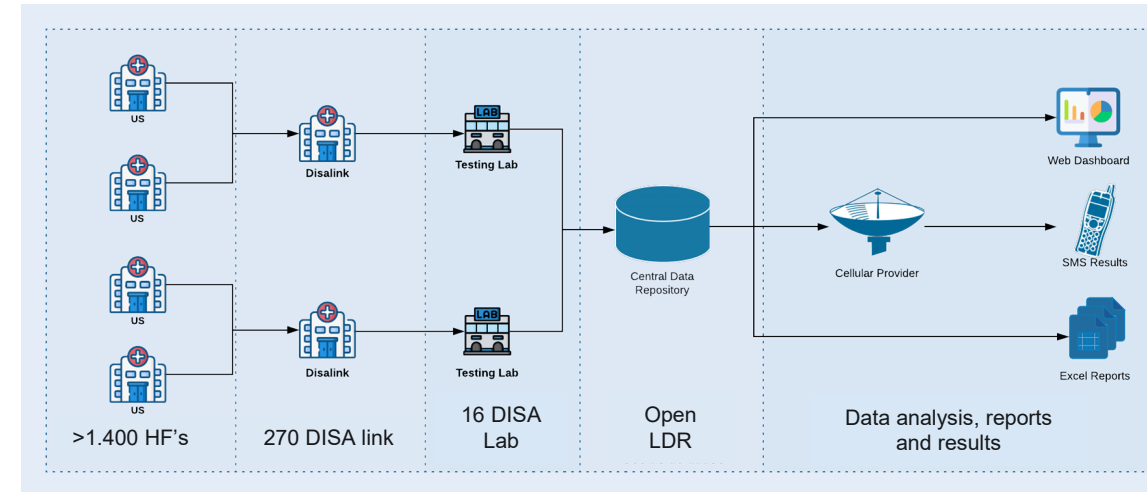


Laboratory Information Systems Supporting Network Optimization

Accomplishments:

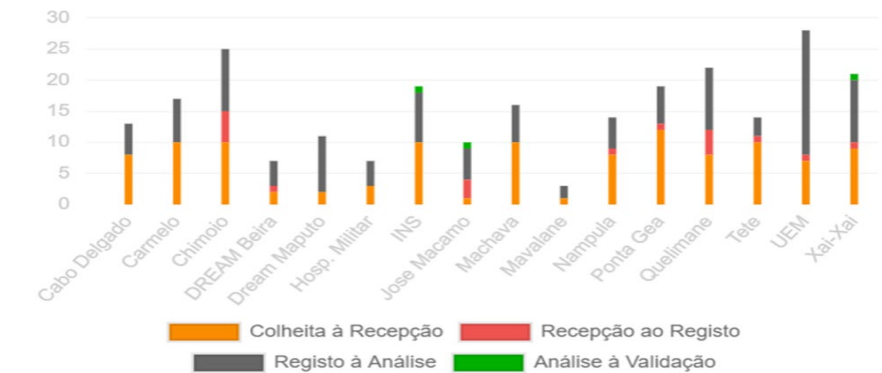
- DISA-Lab operational in all VL/EID & most reference laboratories
- DISA POC successfully piloted and rolled out to 50 HF's to capture EID results on the central data repository for program monitoring
- On track to implement DISA-link in all HF's with >1,000 patients on ART (where infrastructure permits)
- DISA / EPTS interoperability successfully piloted in 2 provinces
- EID Dashboard developed; currently under review
- Dashboard, weekly and monthly indicator reports provide data for lab network performance monitoring

VL_EID LIS infrastructure



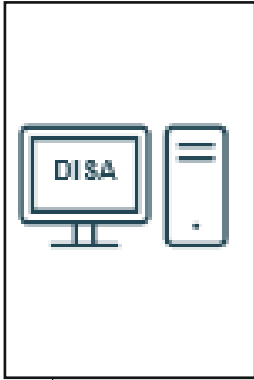
ÚLTIMOS 12 MESES

Tempo de Resposta por Lab



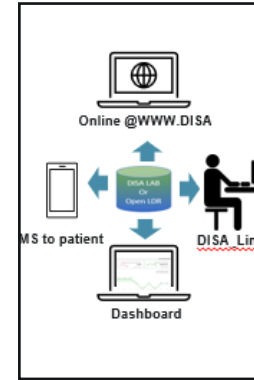
Laboratory dashboard demonstrating laboratory network VL TAT in last 12 months (Average TAT: 15 days)

Strengthening Laboratory Information Systems in COP22



Unlimited DISA license to support LIS expansion to all multiplexing and advanced disease sites

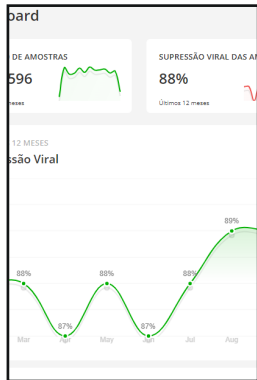
- License available to MOH for national LIS strategic plan
- DISA POC rolled out for multiplexing and advanced disease package



Expedite results delivery from conventional laboratories through:

- Patient SMS alerts
- Provider access to facility level data on Clinical Summary App, VL/EID Dashboard and www.disalab.com

>80% of HF's receiving results via email



- Continued monitoring of VL/EID network through Dashboards, TB Dashboard development
- Reports providing weekly and monthly indicator monitoring (sample backlog, equipment performance, TAT, rejection rates and lab productivity)



- Expand DISA_EPTS interoperability to improve accuracy of data transfer and increase availability of results on EPTS to all provinces

Continued Focus on Continuous Quality Improvement of Laboratory Services

Accomplishments

- Regional TB Reference Laboratory in Nampula achieved international ISO 15189 accreditation (total accredited laboratories = 7)
- Laboratory Quality Improvement and Accreditation Program (SLMTA) decentralized to all provinces
- 7 laboratories achieved 3 Stars on the SLIPTA Checklist
- HIV rapid tests and TB external quality assessment (EQA) programs decentralized to all provinces

Challenges

- Inadequate provincial level staff to sustain decentralized program
- Need for improved coordination with central level
- Accreditation and SLIPTA checklist requirements difficult for lower-level laboratories to achieve
- Laboratory EQA participation and performance below desired thresholds (less than 85% HIV rapid test sites participating in PT)

COP22 Activities

- Training and TA to build provincial capacity to sustain provincial SLMTA program (TOT, audits, ISO)
- Establish National Certification Program for lower-level laboratories
- Continued accreditation mentorship for high performing clinical labs with goal to accredit at least two clinical laboratories
- Expand EQA programs and timely TA to poorly performing sites



HRH and Infrastructure

Maintain

- Expansion of Telesaude capacity
- Support for PEPFAR funded HRH (~500 staff) at sustainability sites
- HRH analytics to improve alignment of PEPFAR HRH investments with national strategies and priorities
- Integration of updated curricula and treatment guidelines into distance learning platform
- Maintenance of HRH information systems

New Activities

- Technical assistance to MISAU HRH and training departments
 - Phased centralization of HRH hiring under specialized partner (CDC only)
 - Technical support for policy dialogue with Government on integration of specific, limited PEPFAR funded HRH cadres, specifically Ministry of Public Service and Ministry of Finance
 - Strengthening of systems and data security
-

PEPFAR Infrastructure Investments

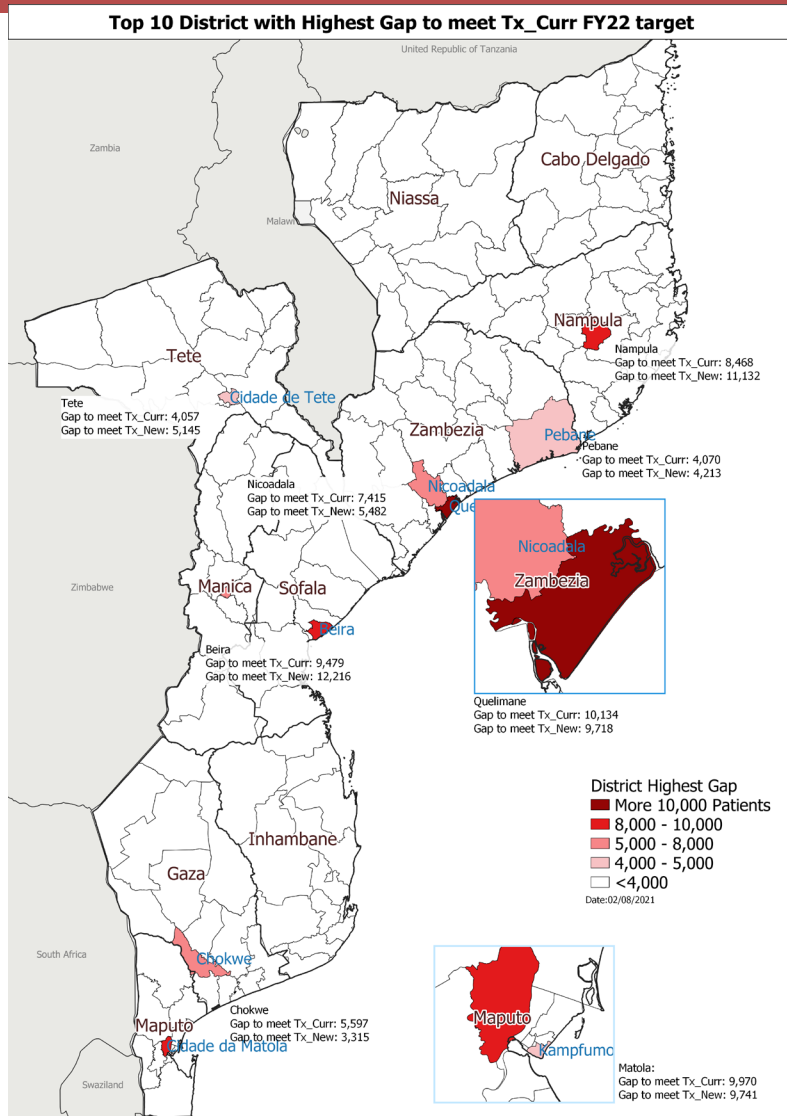
Vision:

To improve service delivery and expand the core services needed to achieve the 95-95-95 goals

Plans for COP22:

- Continue improving the infrastructure of high-volume HFs; construct 35 SAAJs and one VL laboratory
 - Build one new VL Laboratory in Niassa or Inhambane provinces
 - Increase the storage room in existing VL Laboratories to cope with increasing test demand
 - Construct 35 SAAJs in DREAMS districts
 - Implement small renovations at HFs to improve daily operations
- The country team developed a prioritization tool to allow for the efficient allocation of limited infrastructure funds with the view to:
 - Determine which HFs will benefit most patients on ART
 - Assess where investments will have the most impact for enrolling new patients on ART

Prioritization Tool to Target Infrastructure Interventions in COP22



- The infrastructure prioritization tool was developed to identify districts with the highest number of PLHIV who need treatment
- The tool determined 10 districts with the highest gaps to meet TX_CURR and TX_NEW FY22 targets

Quelimane

Nicoadala

Nampula

Beira

Cidade da Matola

Kampfumo

Chokwe

Pebane

Cidade de Tete

Chimoio



Obrigado!